



UNITED STATES PATENT AND TRADEMARK OFFICE

Deh

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/722,495

11/28/2003

Yu-Kai Lin

BHT-3167-169

7679

7590

03/06/2006

BRUCE H. TROXELL

SUITE 1404

5205 LEESBURG PIKE

FALLS CHURCH, VA 22041

EXAMINER

WALFORD, NATALIE K

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 03/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/722,495

Applicant(s)

LIN, YU-KAI

Examiner

Natalie K. Walford

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 7-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 10-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Claims 7-9 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected method of manufacturing a heat-dissipating plate, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on November 2, 2005.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-6, 10-11, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Inoue et al. (JP 11-65485).

Regarding claim 1, Inoue discloses a plasma display device in figure 1, including: a plasma display panel (item 32); and a heat-dissipating plate (item 34), mounted on the plasma display panel and thermally connected to the plasma display panel through a

laminar attachment structure (item 2); wherein the laminar attachment structure includes an annular channel (FIG. 1) which divides the laminar attachment structure into an outer closed portion and an inner portion and communicates with the external environment through at least one vacuum-pumping aperture (item 40) formed at the heat-dissipating plate.

Regarding claim 3, Inoue discloses the plasma display device of claim 1, wherein the laminar attachment structure is an adhesive double tape (Description, paragraph 3).

Regarding claim 4, Inoue discloses the plasma display device of claim 1, wherein the inner portion of the laminar attachment structure includes at least one trench, which divides the inner portion into at least two separated regions (FIG. 1).

Regarding claim 5, Inoue discloses the plasma display device of claim 1, wherein the at least one vacuum-pumping aperture is disposed above the annular channel (FIG. 1).

Regarding claim 6, Inoue discloses the plasma display device of claim 4, wherein the at least one trench (FIG. 1) of the inner portion of the laminar attachment structure communicates with the external environment through at least one vacuum-pumping aperture (item 40) formed at the heat-dissipating plate.

Regarding claim 10, Inoue discloses a plasma display device, including: a plasma display panel (item 32); and a heat--dissipating plate (item 34), mounted on the plasma display panel and thermally connected to the plasma display panel through a laminar attachment structure (item 2) having a plurality of strips (item 2) spaced apart

Art Unit: 2879

from each other (FIG. 1); wherein a respective guide trench¹ is disposed between each pair of the neighboring strips to guide out the air within the spaces of the plurality of strips (FIG. 1).

Regarding claim 11, Inoue discloses the plasma display device of claim 10, wherein the two ends of the guide trench (FIG. 1) are sealed to form a closed region, which communicates with the external environment through at least one vacuum-pumping aperture (item 40) formed at the heat-dissipating plate.

Regarding claim 14, Inoue discloses the plasma display device of claim 10, wherein the laminar attachment structure is an adhesive double tape (Description, paragraph 3).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (JP 11-65485) in view of Reisenauer et al. (US 6,161,910).

Regarding claim 2, Inoue discloses the plasma display device of claim 1, but does not expressly disclose that the laminar attachment structure is a thermal pad, as claimed by Applicant. Inoue does disclose though, that the attachment structure may

¹ A long, narrow channel

Art Unit: 2879

be an adhesive double tape. Reisenauer is cited to show a heat sink (FIG. 4, item 28) that is connected to a display with a thermal pad (FIG. 4, item 84). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the laminar attachment structure be a thermal pad since it is known in the art that a thermal pad is another way of connecting a heating plate with a display as shown by Reisenauer.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to modify Inoue's invention to include the laminar attachment structure is a thermal pad as suggested by Reisenauer for connecting the display panel and heat dissipating plate.

Regarding claim 13, Inoue discloses the plasma display device of claim 10, but does not expressly disclose that the laminar attachment structure is a thermal pad, as claimed by Applicant. Inoue does disclose though, that the attachment structure may be an adhesive double tape. Reisenauer is cited to show a heat sink (FIG. 4, item 28) that is connected to a display with a thermal pad (FIG. 4, item 84). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the laminar attachment structure be a thermal pad since it is known in the art that a thermal pad is another way of connecting a heating plate with a display as shown by Reisenauer.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to modify Inoue's invention to include the laminar attachment

Art Unit: 2879

structure is a thermal pad as suggested by Reisenauer for connecting the display panel and heat dissipating plate.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (JP 11-65485).

Regarding claim 12, Inoue discloses the plasma display device of claim 11, but does not expressly disclose that the space is about 3-20 mm, as claimed by Applicant. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the space between the strips about 3-20 mm, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalie K. Walford whose telephone number is (571)-272-6012. The examiner can normally be reached on Monday-Friday, 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571)-272-2457. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Art Unit: 2879

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

nkW

Natalie W.
3/1/06

S. Roy
3/2/06
Sikha Roy
AU 2879